

ABSTRACT OF THE DISCLOSURE

To simplify wire harness including power cables and reduce power loss in an engine-motor hybrid vehicle drive train system.

Some wheels are driven by an engine. Wheels other than the 5 wheels driven by the engine are driven by a motorized machine. When the running load is large, for example, in starting a vehicle or running it on a climbing lane, the motorized machine is activated as a motor for driving wheels in order to assist the engine drive system. While a vehicle runs, there is a range 10 in which no motor assistance is needed (for example, in low to medium load running or deceleration). While no motor assistance is needed, the motorized machine functions as a generator to convert mechanical energy from the wheels into electric energy. The motorized machine, inverter, capacitor 15 device and controller are integrated into a unit and the unit is attached to a differential gear.